COMARISION OF STRATEGY – LESS INTUBATION AND LESS SURFAKTANT - IN TWO DIFFERENT PERIODS AMONG PREMATURE INFANTS FROM 28 UP TO 36 WEEKS OF GESTATION

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Introduction

147 preterm infants of 28 or more weeks of gestation were investigated during two one year periods. They differed in the treatment approach - in the first, preterm infants were more often treated with invasive mechanical ventilation and surfactant and in the second with non-invasive ventilation and without surfactant (or by LISA method). We wondered if there was a difference in the perinatal outcome.

Material and methods

Perinatal outcome was evaluated in the presence of complications (severe cerebral bleeding, bronchopulmonary dysplasia, necrotic enterocolitis, hospital infections and need for laser photocoagulation). Differences in the duration of oxygenation and hospitalization during the 2 observed periods were observed. Preterm infants less than 28 weeks and those with congenital anomalies were excluded. 67 preterm infants in 2015 and 80 in 2017 were treated. There was a significant difference (p <0.05) in the treatment in two periods. In 2015 - 28% was treated without surfactant and was not intubated compared to 2017 when 50% was not intubated or received a surfactant (only sometime by LISA). In 2015 preterm infants up to 32 gestational weeks were hospitalized on average 44 days (median 42 days) and in 2017-46 days (median 44 days). Older preterm infants in 2015 were hospitalized on average for 23 days (median 18 days) and 2017-20 days (median 18 days).In the group of up to 32 gestational weeks need for oxygen therapy was 2 days longer in 2017 (median 25) and in older preterm two days shorter (median 12 and 10).

Conclusion

Less invasive treatments reduced the incidence of nosocomial infection and the time to introduced complete enteral nutrition. Oxygen therapy for preterm infants up to 32 weeks extended for two days and in older two days shortened. The duration of hospitalization for preterm infants up to 32 weeks extended for 2 days, and shortened for 3 days in the older group. Despite the treatment with less invasive methods (less intubation and less surfactant and LISA method) there are no statistically significant differences in the number of complications. In 2017, there were a greater number of retinopathies in gestation group of 31 and 32 weeks (compared to the year 2015 when it occurred in those of 28 to 30 weeks). The proportion of necrotic enterocolitis and severe cerebral hemorrhage is the same despite a different approach to treatment.